

## Product Datasheet

### Vazyme - 2 × Phanta Max Master Mi (P515-02)

#### Description

Phanta Max Super-Fidelity DNA Polymerase is a new generation superior enzyme based on Phanta DNA Polymerase for robust PCR with higher fidelity. The unique extension factor, specificity-promoting factors and plateau un-inhibitory factor newly added to Phanta Max greatly improve its long-fragment amplification ability, specificity, and PCR yield. Phanta Max is capable of amplifying long fragments such as 40 kb λDNA, 40 kb plasmid DNA, 20 kb genomic DNA and 10 kb cDNA. The amplification error rate of Phanta Max is 128-fold lower than that of conventional Taq and 6-fold lower than that of Pfu. In addition, Phanta Max has a good resistance to PCR inhibitors and can be used for direct PCR amplifications of bacteria, fungi, plant tissues, animal tissues, and even whole blood samples. Phanta Max contains two monoclonal antibodies inhibiting the 5'→3' polymerase activity and 3'→5' exonuclease activity at room temperature, which enable Phanta Max to perform hot start PCR with great specificity. This kit contains Phanta Max Super-Fidelity DNA Polymerase, dNTP, and an optimized buffer system. It contains all required reaction components, except primers and templates, thereby simplifying the operation process and improving the detection throughput and repeatability. Protective agents in the 2 × Phanta Max Master Mix enable the resistance to repeated freezing and thawing. Amplification will generate blunt-ended products, which are compatible with ClonExpress and TOPO cloning kits (Biorbyt #C112/C113/C115/C601).

#### Storage

Store at -30 ~ -15°C for up to 18 months, and transport at ≤0°C. ▲ Avoid repeated freezing and thawing.

#### Note

For research use only

#### Application notes

Ultra-high fidelity: The fidelity is 128 times that of Taq DNA Polymerase; Faster amplification: The limit speed can reach 0.5 sec/kb, 30 sec/kb can efficiently amplify most fragments; Longer amplification: The effective amplification length of simple templates such as plasmid and λ DNA can reach 40 kb, the effective amplification length of genome can reach 20 kb, and the effective amplification length of cDNA can reach 10 kb; Wide adaptability: It is suitable for the amplification of various GC content fragments, has super tolerance to PCR inhibitors, and can be used for direct PCR of a variety of samples; Simple operation: Dye premix, minimize experimental steps.

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**Expiration Date** 12 months from date of receipt.



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